

[0525] CLAIMS

1. A device for generating and dispensing a foam for therapeutic use comprises:

- 5 (g) a housing;
- (h) the housing comprising a first chamber of adjustable volume comprising gas at substantially atmospheric pressure or greater;
- (i) the housing further comprising a second chamber of adjustable volume comprising a solution comprising at least one sclerosant agent;
- 10 (j) an outlet for dispensing the gas and the solution in the form of a foam and a flow path communicating between the outlet and the first and second chambers;
- (k) the flow path comprising a region in which mixing of the gas and the solution takes place;
- 15 (l) a foaming unit located downstream of the mixing region, the foaming unit comprising holes with a dimension transverse to the flow direction of between 0.1 and 100 micron.
2. The device of claim 1 wherein the gas is at least 70% by volume oxygen.
- 20 3. The device of claim 1, wherein the gas is at least 90% oxygen.
4. The device of claim 1, wherein the gas is at least 99% oxygen.
5. The device of claim 1, wherein the gas is substantially 100% oxygen.
- 25 6. The device of claim 1 wherein the gas is at least 70% by volume carbon dioxide.
7. The device of claim 1, wherein the gas is at least 90% carbon dioxide.
8. The device of claim 1, wherein the gas is at least 99% carbon dioxide.
- 30 9. The device of claim 1, wherein the gas is substantially 100% carbon dioxide.
10. The device of claim 1, wherein a source of motive power is provided to adjust the volume of one or both of the said chambers.

11. The device of claim 1, wherein the housing is a syringe having twin plungers.

12. The device of claim 1, wherein the cross sectional area of the first and second chambers are in a ratio of between 20:1 and 2:1.

5 13. The device of claim 13, wherein the cross sectional area of the first and second chambers are in a ratio of between 20:1 and 2:1.

14. The device of claim 1, wherein the housing is a flexible bag.

15. The device of claim 1, wherein the gas is chosen from oxygen, carbon dioxide and mixtures thereof.

10 16. The device of claim 1, wherein the solution further comprises at least one viscosity enhancing agent.

17. The device of claim 16, wherein the at least one viscosity enhancing agent is present in the amount of 20% vol/vol.

15 18. The device of claim 17, wherein the at least one viscosity enhancing agent is chosen from glycerol and PVP.

19. The device of claim 18, wherein the at least one viscosity enhancing agent is chosen from glycerol.

20. The device of claim 1, wherein the at least one sclerosing agent is chosen from polidocanol, glycerol and sodium tetradecyl sulphate.

20 21. The device of claim 1, wherein the at least one sclerosing agent is polidocanol.

22. The device of claim 1, wherein the polidocanol is present in a concentration ranging from 0.5 to 4% vol/vol in the solution.

25 23. The device of claim 1, wherein the foam has a density less than 0.25 g/cm and half life of greater than 100 secs.